

# *OWNER'S MANUAL MOTORCYCLE*



Vestalian

**Dear Customer:**

Thank you for purchasing the Vestalian motorcycle.

The Vestalian scooter is a product manufactured by using advanced equipment and made up of high-quality component parts. Equipped with electronic igniter, electric starting motor and protection-welded frame, the vehicle features high performance, good fuel economy, low noise level, quick acceleration and good mobility. All these features combine to make the scooter a high-rating vehicle for use in urban areas as well as a trendy symbol of the modern world. This manual provides detailed information about the correct operation, maintenance and adjustment of your Vestalian vehicle and following these tips can make your unit durable. The manufacturer hereby begs your understanding in case of any inconsistency between the content (pictures or verbal descriptions) of this manual and the actual condition of your vehicle due to possible changes in the specifications. Please read this manual carefully to ensure safety and maximum ease of use. We remain wishing you all the best with your vehicle.

## **Important Notice:**

- **Driver and passenger**

This vehicle is designed to carry only one driver and one passenger . Do not exceed the rated load capacity specified on the specification label.

- **Road condition**

This vehicle is designed to travel on flat road.

- **Read this manual carefully to get a good understanding of the information contained there in.**

- **Pay special attention to sentences or paragraphs under the following headings:**

### **WARNING:**

**This heading warns you that serious personal injury or death may result if fail to operate as instructed in the manual.**

### **CAUTION:**

**This heading reminds you that personal injury or mechanical damage may result if you fail to operate as instructed in the manual.**

**NOTE:**

This manual is used to precede instructions on effective operation .

You should regard this manual as a permanent component part of your vehicle, perform periodic maintenance of your vehicle in a proper way . It is suggested to have your new vehicle inspected and maintained one month after purchase or after 300 km of driving usage and the best place to have this done is in nearby service center authorized by the manufacturer.

**Safety Precautions**

**It is only the driver that can ensure the safety of travel.**

A safety-minded motorcycle driver always spend much time learning how to drive and develop his driving skills in a place where traffic is not so busy before he begins to drive on a highway road.

1. Many of motorcycle accidents were caused by the failure of the car driver to see the motorcycle driver. Therefore, the motorcycle driver should make himself clearly seen by the car driver. For example:

- \* Wearing colorful and eye-catching clothes

- \* Avoiding the blind spot to traffic and driving without any mental alertness.

2. Many motorcycle accidents happened at the intersection of roads, entrance to a parking lot and on a carriage way. Therefore be extremely careful when driving at these areas.

3. High-speed driving is a major factor for motorcycle accidents. Always keep the speed limit and never drive high speed.

Many motorcycle accidents were caused by inexperienced drivers. Those who have just learnt how to drive a motorcycle should be thoroughly.

4. familiarized with the performance of the vehicle before driving on a highway road. Never lend your vehicle to anyone who is inexperienced in driving.

5. As most of serious motorcycle accidents caused injuries of the drivers in head, it is suggested to wear a helmet and protective fits such as protective glasses, boots, gloves, thick and strong coat.

6. Avoid driving on an expressway. If this is unavoidable, you must be very careful to ensure safety.

7. Do not drive on a roughly rugged road as a rough surface may lead to loss of control and cause damage to the vehicle structure.

## **Safety Rules**

1. Before driving a motorcycle, be sure to check it carefully ( See the section “Inspection before Operation ” of this manual).
2. Always put on a helmet and if possible wear boots , gloves , eye-protecting glasses and colorful clothes to ensure safety.
3. The rear box or travel box installed by the driver is used to carry lightweight objects only . If a travel box is attached to either rear side of the vehicle , the objects should be equally distributed inside either travel box. The objects being carried should be securely fastened in place so that they will not move during travel . See the relevant part of the manual for detailed information on loading.
4. When driving , hold the handlebar with both hands and put feet on the footrest
5. Before driving on a highway road , you should practice on a place free of busy traffic to familiarize yourself fully with the performance of your vehicle.
6. Always remember to switch on the turn signal lights before making a turn or changing lanes.
7. Do not drive your vehicle on the shoulder on either side of the road . You should always remember not to cause damage to the natural beauty and public facilities.

## **Loading**

### **WARNING:**

**A) The travel box is used to carry only lightweight objects, not heavy ones.**

**B) When checking if the vehicle is overloaded ( the rated load capacity being 155 kg) , the weights of the objects being carried , the vehicle and the driver should be put together .**

**C) An overloaded vehicle is unable to run steadily and becomes difficult to operate.**



### Location of Component parts

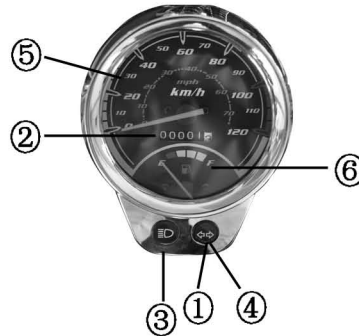
- ① Rear mirror                      ② Headlight    ③ Front turning light            ④ Muffler  
⑤ Tail light                      ⑥ Rear turning light            ⑦ Seat



## Meter Panel and Indicators

All the controls for the indicators and warning lights are located on the meter panel. Their functions are described in detail in the following pages.

- ① Left turn signal indicator
- ② Odometer
- ③ High beam indicator
- ④ Right turn signal indicator
- ⑤ Speedometer
- ⑥ Fuel gauge



### Fuel gauge

The fuel gauge indicates the approximate amount of fuel remaining in the fuel tank. When the needle pointer stays in the F(full) position, it means the total capacity of the fuel tank is now 6.4 liters (including reserve fuel). When the needle pointer approaches the first dot of the red mark, it means that the fuel tank must be refilled immediately. With the needle pointer staying in the red mark

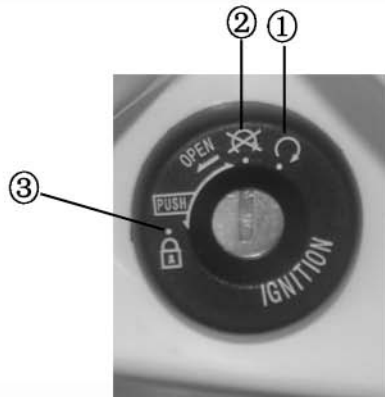
## Guide to Operation

### Ignition Switch

① ON position Turn the switch to this position to start the engine ; the switch key can not be pulled out in this position.

② OFF position Turn the switch to this position to shut down the engine ; the switch key can be pulled out in this position.



③ LOCK position Turn the switch all the way to the left , push it down and turn it to the LOCK position ; the key can be pulled out . In this case , the vehicle can not be steered and the engine as well as the lighting system will not work.

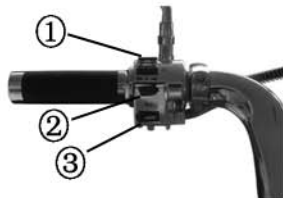


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

**In hot weather, leaving the engine idling for a long time will cause it to over-heated .You should shut it down to let it get cool.**

**Headlight beam switch ①**

Push the “ ” button for high beam and the “ ” button for low beam.



**Turn signal light switch ②**

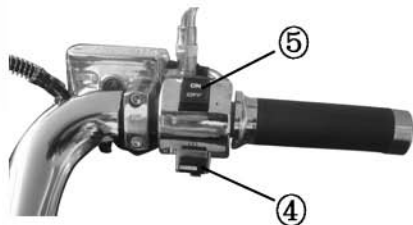
Set this switch the “ ” positon to indicate a left turn and to the “ ” position to indicate a right turn and push it down to turn off the signal lights .

**Horn button ③**

Push this button to make blaring sound from the horn .

**Start button ④.**

When this button is pushed, the starting motor works to start the engine. See the part “ starting the Engine ” for the starting procedure.



**Engine stop off ⑤**

Turning the switch to this “OFF” position to power off ,  
and checking the switch on “ON” position before starting .

## **LOADING OF CARGO**

**NOTE :** We have special requirements for the distributed weight of goods. Improper loading affects the function and stability of the motorcycle, even causes accidents and damages the vehicle.

1. The rear box and travel box are used to carry lightweight articles.
2. Strictly forbid loading goods with excess weight on the vehicle, otherwise it may cause accidents. The following loading specification should be followed:  
Max. loading capacity of rear box: 10kg  
Max. loading capacity of travel box : 1.5kg
3. Goods are not permitted to be loaded on non-designated places on the vehicle, otherwise the covering parts of the vehicle may be damaged.

### **Inspection before Operation**

Before you drive the vehicle each day, be sure to check it as a routine. This is important to keep the vehicle in good performance and ensure safe operation.

**Fuel Level**

The fuel tank has a capacity of 6.4 liters . If the fuel gauge pointer comes near to the red mark position, you should refill the fuel and at the same time check it for leakage.

The recommended fuel for use is 87#lead-free gasoline.

**CAUTION:**

Take extreme care when refilling the fuel not to get dust , water or other matters into the fuel tank , Do not mix the fuel with engine oil . Only gasoline can be injected into the fuel tank.

**WARNING:**

● Gasoline is a highly inflammable substance and will even explode under certain conditions . Therefore always do the fueling in a well ventilated place and shut down the engine . Meanwhile do not smoke or generate sparks in gas stations and places where gasoline is stored.

● Do not make the fuel tank too full ( Fill it up to pipe at the refill opening without trapping any fuel in it ) . Tighten the fuel tank cap after refilling.

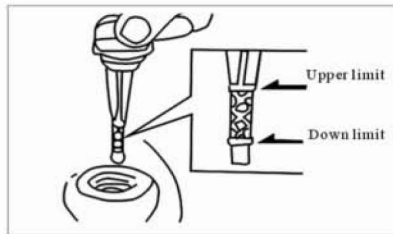
● Gasoline is poisonous and if swallowed by mistake will cause loss of consciousness or even death . Therefore do not soak the skin in gasoline for a long time or breathe in its vapor.

## Checking the oil level and refilling

1. Turn down the center stand. Remove The oil dipstick and clean it.

2. Insert the dipstick directly (without turning it )into the oil tank.

3. Remove the dipstick and check the oil level. If the oil level comes near to the lower limit mark , refill the oil tank up to the upper limit mark.



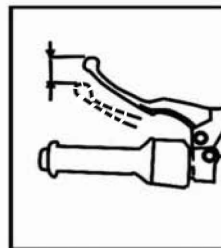
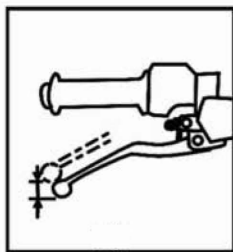
### Using the recommended type of oil

SAE 10W-40(SIGMA)for 4-stroke engines or its substitute HQB-10 should be used.

### CAUTION:

1. The market is full of fake oils. Using such oils may cause engine trouble.
2. To ensure safe and normal use of your vehicle, be sure to use the recommended type of oil.

# Brakes



## Adjusting the front brake

Check the brake for normal performance and adjust its free play . The free play refers to the distance for which the front brake lever travels freely to achieve the braking effect.

Required free play : 5 to 10mm

## Adjusting the rear brake

Measure the traveling distance of the rear brake lever before the brake begins to create the braking effect , which should be within 10 to 20 mm from the top end of the brake lever.

## Maintaining the brakes

Replace the brake shoe and lining when it is found worn down to the limit.

**NOTE: Leave the maintenance of the brakes to the authorized service center. Always replace the brake shoe with one of the same brand or another brand of the same quality.**



## Checking the tire pressure

Check the tires for correct inflation pressure.

Normal tire pressure

Front wheel 200 kpa

Rear wheel 225 kpa

Check the tire surface for cuts , nails or other sharp objects and the wheel rim for impressions,dents or deformations. If damage of any degree is found with the tire. send your vehicle to the nearby service center for repair, replacement and adjustment of balance between the two wheels.

### **WARNING:**

If the tire is not inflated to the specified pressure , it will wear out soon and give rise to accidents . Too low a tire pressure will cause the tire to slip or come off the wheel rim.

It is dangerous to use fissured to worn tires as this will weaken the adherence of the tire to the road surface and make operation difficult.

Replace the tire if the depth of the tread in the middle of the tire falls within the following range .

Minimum tread depth	
Front Tire	1.5mm(0.06in)
Rear Tire	2.0mm(0.08in)

(Wear limit mark)



(Nail, stone, foreign matter)



## Starting the engine

Turn down the main stand to prop up the vehicle (or not to prop it up).insert the key into the igniter keyhole and hold the braking on .  
 Turn the key to the ON position and , keep throttle little open , push the start button to get the engine started . If the engine fails to get started , do this operation several times but be sure not to keep the start button depressed for longer than 5 seconds in each attempt and an interval of about 10 seconds should be kept between two attempts. Release the button immediately when the engine is started and at the same time keep the engine running for short time to warm it up.

**CAUTION:**

**Always start the engine with the rear brake level holding .**

The engine should not be allowed to run too fast when it is being warm up.

Quick opening and closing of the throttle must be avoided.

**Maintenance Schedule**

The maintenance schedule is according to the distance driven by the vehicle when to carry out the periodic maintenance and lubrication of which parts.

Maintenance should be taken intensively if the vehicle is used in an unfavorable for a long time . An overhauled or crashed motorbike must be sent to the authorized service to have the major parts carefully checked such as the frame. Suspension and steering mechanism to see if they are mismatched or damaged so as to ensure safe operation.

If adjustment is needed to keep the exhaust emission within the specified range. It should take place in a plant or laboratory equipped with complete test facilities

**CAUTION:** To keep the vehicle safe and reliable , do not modify the vehicle . In repair or maintenance , always replace the damaged parts with ones provided by the original manufacturer or ones of similar quality. Using other similar parts of poor quality will degrade the operability of your vehicle.

**WARNING:** To ensure personal safety , be sure to shut down the engine first and place the vehicle on a flat surface and prop it up securely with the main stand before performing maintenance at whatever levels.

**NOTE:** If the vehicle is to be stored for more than one month or to be used in winter , maintenance should be done in advance to prevent the fuel ,tires, battery ,etc ,from deteriorating or rusting .

### **Periodic maintenance items and schedule.**

To ensure safety in travel , good performance and durability of the vehicle and reduce emission , be sure to perform periodic maintenannnce duly and properly.

### Maintenance table

To keep the performance good, the motorcycle should be checked and maintained at certain interval. The meanings of capital in following table are:

I: Inspection, including check, clean, lubricate, refuel, repair or replacing if necessary.

A: Inspection, adjusting if necessary    C: Cleaning    R: Replacing    L: Lubricate

Maintenance period Items	Odometer (km)								Everyday check before riding
	1000	2000	3000	4000	6000	8000	10000	12000	
Engine oil	R			R		R		R	I
Spark plug				I		I		R	
Valve Gap				I/A		I/A		I/A	
Idle Speed				I/A		I/A		I/A	
Oil filter				C		C		C	
Gear Oil				R		R		R	
Fuel Filter				R		R		R	
Air Cleaner				C		C		R	
Throttle Operation				I		I		I	
Brake Shoes/Pad Wear				I		I		I	
Brake System				I		I		I	I
Brake Light Switch				I		I		I	
Brake Liquid				I		I		I	
Clutch				I		I		I	
Suspension				I		I		I	
Nuts,Bolts,Fasteners				I		I		I	
Wheel/Tyre				I		I		I	
* When the mileage is over the highest on the table, please perform according to the period set on the table									
* Driving on dust place, it is recommended to clean it frequently.									

## **Cleaning the air cleaner**

A dusty air cleaner leads to an increased fuel consumption and should therefore be cleaned.

(Procedure)

1. Remove the filter sponge from the air cleaner .
2. Clean the sponge in cleaning oil and dry in the air ( Do not use fuel for this purpose ).
3. Clean the sponge again in engine oil and wring it dry before putting it back into the air cleaner.

### **CAUTION:**

- **Incorrect installation of the air cleaner will cause dust to be sucked into the cylinder and give rise the increased engine wear ,reduced engine power and shortened engine life.**
- **Do not get the air cleaner wet when cleaning the vehicle with water or otherwise you will find the engine difficult to start.**

## **Engine Oil**

**WARNING:** Be sure to refill the oil tank with engine oil (SAE 10W/40) . Immediately when the warning indicator goes on . Insufficient amount of oil will cause damage to the engine.

Check the level of the oil in the oil tank regularly .

### **Viscosity:**

The viscosity level of the engine oil to be used should suit the atmospheric temperature of the local area.

## **Replacing the engine oil**

New model, the first time to change the engine oil when driving 1000km, the second time is 4000km, then should be changed each 4000km from then on. and refill the oil tank to the specified level. The oil tank capacity is 0.9 liters.

**CAUTION:** Be sure to replace the oil earlier than usual if you often use the vehicle to travel on gravel roads , make frequent short trips or use it in cold areas ,Unscrew the drain plug, clean the oil strainer and put it back again.

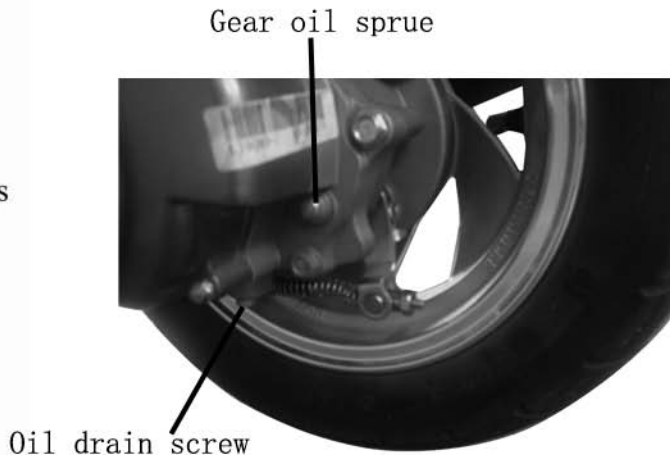
## Replacing the gear box oil

(Frequency of replacement)

Replace the gearbox oil for every 4,000km of travel. The type of GL-4 gear oil should be used.

## Gear oil capacity

Full capacity: 0.11 liters





## Checking the spark plug

A dirty spark plug with dirty electrodes or excessive gap between electrodes will not be able to generate full sparks.

(Cleaning )

- The best result can be achieved if you clean the spark plug with a spark plug cleaner;
- If do not have such a cleaner ,you can clean it with a wire brush.

(Adjusting the gap between electrodes:)

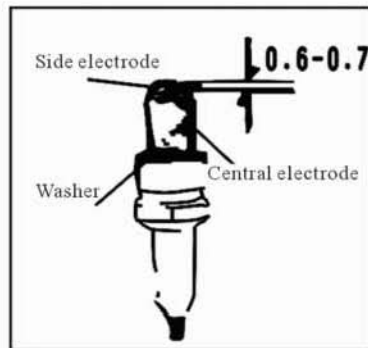
- The side electrode gap should normally be within 0.6 to 0.7 mm (as shown in the figure)

Recommended type of spark plug for us : A7TC

**NOTE:** Never use other types of spark plug than the recommended one.

### CAUTION:

- Avoid burning yourself when working at a hot engine just shout down.
- Screw the spark plug into place first by hand and tighten it with the soket wrench.



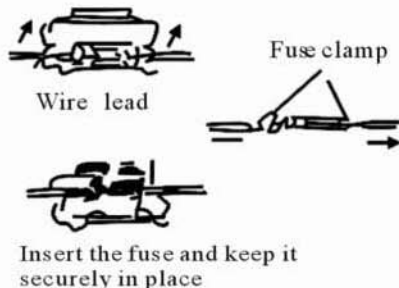
## Replacing the fuse

Turn off the master switch and check the fuse to see if it is blown. Replace the blown fuse with one of the specified capacity.

- Always find out the cause before replacing a blown fuse.
- Unscrew the two screws battery and remove the battery cover. The fuse is located in the fuse box by the side of the battery.
- Open the fuse box and remove the fuse by expanding the fuse clamp from both end of the fuse.

Fuse capacity: 15 A

- Always use original products of the recommended specifications when replacing electric components ( lights , meters , etc.).
- Do not flush your vehicle with pressurized water when cleaning it.



**CAUTION:**

- When removing the fuse, do not expand the fuse clamp too wide.
- After the fuse is installed, check the fuse clamp to see if it runs loose. The fuse will generate heat if the fuse clamp is loose, which is often the major cause of trouble.

**WARNING:**

Never use a fuse having an amperage capacity different from the rated value as this will cause damage to the electric system and give rise to fire hazards or make it impossible to use the lighting system when you travel during the night or cause engine failure.

**Checking the rear wheel spline and front and rear suspension fasteners**

- Before checking the rear wheel spline bush, prop up the vehicle with the center stand and push the side of the rear wheel to see if you get a feeling that the rear wheel bush gets loose.
- Carefully check the fasteners for the front and rear suspension system to see if they are tightened.

## Checking the air cleaner

The air cleaner is fitted with a paper element which should be checked and cleaned once every 4000 km of travel. Clean the filter element in a detergent solution and dry in the air. Apply a small amount of oil to the filter element before use

- Replace the filter element once every 4000 km of travel when necessary. See the “Maintenance Schedule ” for replacement.

### **CAUTION:**

**Clean or replace the filter element more often than usual if the vehicle is used in the following situations :**

- **In rainy weather;**
- **On poor dusty road surfaces.**

## **Adjusting the carburetor**

Stable carburation of fuel is essential to good engine performance . As the carburetor has been adjusted in factory to the best condition ,do not make any change as you wish.What you can do is to adjust the throttle grip and idle speed.

### **(A)Adjusting the throttle grip**

1. Check the throttle grip to see if it can be turned freely with the choke fully opened and fully closed when you make a right turn and left turn.
2. Check the free play of the throttle grip which , when truned by hand , should be about 2 to 6 mm.To adjust it , loosen the lock nut and turn the adjuster.

### **(B )Adjusting the idle speed**

1. Start the engine and allow it to run for a few minutes to warm it up .
2. Tighten the fuel supply adjuster screw and slowly loosen it by normally one and half turn . Fasten the adjuster screw at the position where the highest idle speed is obtained and then turn idle speed screw finely to the required idle speed.

## **Guide to proper storage of vehicle**

### **Storing the vehicle**

To store the vehicle for a long period of time such as in winter, several procedures should be used to prevent malfunction or damage of the vehicle parts during this long break .In addition , before putting your vehicle aside , some repairing efforts should also be made or otherwise you are likely to forget doing such repairs when you put your vehicle back to use.

- 1.Replace the engine oil.
- 2.Drain off the remaining fuel from the fuel tank and carburetor , spray the inside of the fuel tank with a layer of anti-rust oil and tighten the fuel tank cap.

### **WARNING:**

**As gasoline is highly inflammable and may explode under certain conditions, be sure not to smoke or make spark near it when emptying the fuel tank.**

- 3.Remove the spark plug ,pour a spoonful of engine oil into the cylinder, start the engine and run it for a few minutes to allow the oil to distribute all over the inside, and then put the spark plug back in place.

**NOTE: Before turning the engine , be sure to set the ignition switch to the OFF position ,put the spark plug into the cable cap and ground it to prevent damaging the ignition system.**

4.Remove the battery and keep it in a place free of freezing or exposed to direct sunlight .Charge the battery once every month.

5.Clean the vehicle and dry it . Wax the painted surfaces and coat them with a layer of anti-rust oil.

6.Inflate the tires to the correct pressure .Park the vehicle by placing wood pats under both wheels to keep them off ground.

7.put on the vehicle cover ( plastic sheets or other rubber-coated materials not allowed ) and store the vehicle in a cool but not damp place without great change in daily air temperature ,never expose the vehicle to direct sunlight.

## **What to do when putting the vehicle back to use**

- 1.Remove the dust cover and clean the vehicle.Replace the engine oil if the vehicle has been stored for more than 4months.
- 2.Check the battery solution level and if necessary add battery solution.Install the battery back to the vehicle.
- 3.Clean the inside of the fuel tank of anti-rust oil and pour in fresh gasoline .
- 4.Perform all the pre-operation checks and drive the vehicle slowly in an area free from busy traffic to ensure safety.  
( See also the part “Inspection before Operation” )



## Specifications

Dimension(mm)(L×W×H)	1860×850×1080	Battery capacity	12V/7AH
Axle base(mm)	1230	Ignition mode	CDI
<b>Curb Mass</b> (kg)	98	Spark plug	A7TC
Max. speed(km/h)	85	Lubrication	Separate lubrication
<b>Loaded Vehicle Mass</b> (kg)	253	Clutch	Dry. automatic centrifugal
Tire size	3. 50-10, 3. 50-10	Gearshift	Automatic
Wheel rim(front/rear)	Alalloy/Alalloy	Fuse capacity	15A
Brake(front/rear)	disc/drum	Headlight	12V 35W/35W
Rear brake operation	hand	Taillight/brake light	12V5W/21W
Engine type	1P61QMK	Turn signal light	12V/10W×4
Work volume(ml)	168. 9	Meter/turnsignal light	12V3W/3W
Starting	Electric/kick	High-beam indicator	12V/3W
<b>Engine oil capacity (ml)</b>	900	Gear oil capacity(ml)	110